NEW MEXICO
ENVIRONMENT DEPARTMENT

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BUTCH TONGATE
Cabinet Secretary
J. C. BORREGO
Deputy Secretary

Certified Mail – Return Receipt Requested

July 20, 2017

Mr. Alex Alarcon, Plant Manager
GCC Rio Grande, Inc., Tijeras Plant
P.O. Box 100
Tijeras, NM 87059

Re: GCC Rio Grande, Inc.; Tijeras Plant; Minor Industrial; NPDES Compliance Evaluation Inspection; SIC 3241; NM0000116; June 7, 2017

Dear Mr. Alarcon:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

Introduction, treatment scheme, and problems noted during this inspection are discussed in the "Further Explanations" section of the inspection report.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

David Long
US Environmental Protection Agency, Region VI
Enforcement Branch (6EN-WM)
Fountain Place
1445 Ross Avenue
Dallas, Texas 75202-2733

Sarah Holcomb
New Mexico Environment Department
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

If you have any questions about this inspection report, please contact Daniel Valenta at 505-827-2575 or at daniel.valenta@state.nm.us.

Sincerely,

/s/Sarah Holcomb

Sarah Holcomb
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

cc:

Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Gladys Gooden-Jackson, USEPA (6EN-WC) e-mail
Brent Larsen, USEPA (6WQ) by e-mail
Robert Houston, USEPA (6EN) by e-mail
David Long, USEPA (6EN-WM) by e-mail
Sarah Vance, GCC by e-mail
NMED District I, John Rhoderick

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

NPDES Compliance Inspection Report

Section A: National Data System Coding

Transaction Code	NPDES	yr/mo/day	Inspec. Type	Inspector	Fac Type
N	NM0000011 6	170607	C	S	2

Remarks: COMENT MANUFACTURING & QUARRY

Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved
	1	N	N	

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*	Entry Time /Date	Permit Effective Date
GCC Rio Grande, Inc., Tijeras Plant, 11783 State Highway 337 South, Tijeras, NM, 87059. From NM 14 and I-25, South on NM 337, approximately ¼ mile, Entrance on Right. Bernalillo County.	0920 hours / 6/7/2017	June 1, 2016
	Exit Time/Date	Permit Expiration Date
	1240 hours / 6/7/2017	May 31,2021

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

-Alex Alarcon, Plant Manager, GCC Rio Grande, Inc. (see below)
-Sarah Vance, Environmental, GCC Rio Grande, Inc.505-286-6026, cell 505-238-8272
-James Burt, Raw Material Manager, GCC Rio Grande, Inc., 505-286-6018, cell 505-281-9126

Other Facility Data
Monitoring Location Outfall 001
Latitude: 35.073611°
Longitude: -106.397500°

Permitted Outfall 004
Latitude: 35° 04 23.51,
Longitude: -106° 23 42.27

SIC 3241 Cement, Hydraulic (Primary)

Name, Address of Responsible Official/Title/Phone and Fax Number
Alex Alarcon, Plant Manager, Tijeras Plant, GCC Rio Grande, Inc., P.O. Box 100, Tijeras, NM 87059 / 505-286-6038, cell 719-406-8560 and fax 505-281-9126

Contacted: Yes [*] No [ ]

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

U	Permit	S	Flow Measurement	U	Operations & Maintenance	N	CSO/SSO
U	Records/Reports	S	Self-Monitoring Program	N	Sludge Handling/Disposal	N	Pollution Prevention
U	Facility Site Review	N	Compliance Schedules	N	Pretreatment	N	Multimedia
N	Effluent/Receiving Waters	S	Laboratory	N	Storm Water	N	Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

Permission was obtained from the land owner to enter the property below GCC Outfall 001 and Outfall 004. A site visit was completed on 6/26/2017. With the Inspector was Sandra Gabaldon of the State of New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB); Kali Bronson, Stormwater Program Compliance Manager, Bernalillo County; and Sarah Vance, Environmental Engineer, GCC.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
Daniel Valenta *<u>/s/Daniel Valenta</u>*	**NMED/SWQB/505-827-0418**	7/20/2017
Signature of Management QA Reviewer	**Agency/Office/Phone and Fax Numbers**	**Date**
Jennifer Foote *<u>/s/Jennifer Foote</u>*	**NMED/SWQB/505-827-2637**	7/20/2017

GCC Rio Grande, Inc. - Tijeras Plant	PERMIT NO. **NM0000116**

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS ☐ S ☐ M ☒ U ☐ NA (*FURTHER EXPLANATION ATTACHED* ***Yes***)
DETAILS: **Outfall 004 not constructed.**

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE. ☒ Y ☐ N ☐ NA

2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES. ☐ Y ☒ N ☐ NA

3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT. **Outfall 001 (Yes), Outfall 004 (No)** ☐ Y ☒ N ☐ NA

4. ALL DISCHARGES ARE PERMITTED. ☐ Y ☒ N ☐ NA

SECTION B - RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☐ M ☒ U ☐ NA (*FURTHER EXPLANATION ATTACHED* ***No***)
DETAILS: **Missing WET Test**

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. ☒ Y ☐ N ☐ NA

2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. ☒ S ☐ M ☐ U ☐NA

a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING. ☒ Y ☐ N ☐ NA

b) NAME OF INDIVIDUAL PERFORMING SAMPLING. ☐ Y ☒ N ☐ NA

c) ANALYTICAL METHODS AND TECHNIQUES. **pH method not listed.** ☐ Y ☒ N ☐ NA

d) RESULTS OF ANALYSES AND CALIBRATIONS. ☒ Y ☐ N ☐ NA

e) DATES AND TIMES OF ANALYSES. ☒ Y ☐ N ☐ NA

f) NAME OF PERSON(S) PERFORMING ANALYSES. ☒ Y ☐ N ☐ NA

3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. ☒ S ☐ M ☐ U ☐ NA

4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. ☐ S ☐ M ☐ U ☒ NA

5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA. ☐ Y ☐ N ☒ NA

SECTION C - OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED* ***Yes***)
DETAILS:

1. TREATMENT UNITS PROPERLY OPERATED. ☐ S ☐ M ☐ U ☒ NA

2. TREATMENT UNITS PROPERLY MAINTAINED. ☐ S ☐ M ☒U ☐ NA

3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. ☐ S ☐ M ☐ U ☒ NA

4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. ☐ S ☐ M ☐ U ☒ NA

5. ALL NEEDED TREATMENT UNITS IN SERVICE. **Outfall 004 never constructed.** ☐ S ☐ M ☒ U ☐ NA

6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. ☐ S ☐ M ☐ U ☒ NA

7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. **Sample collection containers, pH instrument buffers** ☒ S ☐ M ☐ U ☐ NA

8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. ☐ Y ☐ N ☒ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. ☒ Y ☐ N ☐ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. ☐ Y ☐ N ☒ NA

GCC Rio Grande, Inc. - Tijeras Plant	PERMIT NO. **NM0000116**

SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR?	☐ Y ☐ N ☒ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED?	☐ Y ☐ N ☒ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?	☐ Y ☐ N ☒ NA
10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT?	☐ Y ☐ N ☒ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?	☐ Y ☐ N ☒ NA

SECTION D - SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No**).*

DETAILS:

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.	☒ Y ☐ N ☐ NA
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT.	☐ Y ☐ N ☒ NA
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
6. SAMPLE COLLECTION PROCEDURES ADEQUATE.	☒ Y ☐ N ☐ NA
a) SAMPLES REFRIGERATED DURING COMPOSITING.	☐ Y ☐ N ☒ NA
b) PROPER PRESERVATION TECHNIQUES USED.	☒ Y ☐ N ☐ NA
c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3.	☒ Y ☐ N ☐ NA
7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT?	☐ Y ☐ N ☒ NA

SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No**)*

DETAILS: **Estimate Only**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. TYPE OF DEVICE	☐ Y ☐ N ☒ NA
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. **Outfall 004 not constructed, discharge may have occurred.**	☐ Y ☒ N ☐ NA
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED.	☐ Y ☐ N ☒ NA
4. CALIBRATION FREQUENCY ADEQUATE.	☐ Y ☐ N ☒ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES.	☐ Y ☐ N ☒ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.	☐ Y ☐ N ☒ NA
5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE.	☐ Y ☐ N ☒ NA
6. HEAD MEASURED AT PROPER LOCATION.	☐ Y ☐ N ☒ NA
7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES.	☐ Y ☐ N ☒ NA

SECTION F – LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No**)*

DETAILS:

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES).*	☒ Y ☐ N ☐ NA

GCC Rio Grande, Inc. - Tijeras Plant	PERMIT NO. **NM0000116**

SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. ☐ Y ☐ N ☒ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. ☐ S ☒ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **0** % OF THE TIME. ☐ Y ☒ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. % OF THE TIME. ☐ Y ☐ N ☒ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME **Hall Environmental Analysis Laboratory**
LAB ADDRESS **4901 Hawkins NE. Albuquerque. NM 87109. 505-345-3975**
PARAMETERS PERFORMED **Metals. Hardness. pH. Total Dissolved Solids. Total Suspended Solids (TSS)**

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes**).*

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	**No discharge**	**No discharge**	**No discharge**	**No discharge**	**No discharge**	**No discharge**	**NA**
004	**Not constructed**	**Not constructed**	**Not constructed**	**Not constructed**	**Not constructed**	**Not constructed**	**NA**

RECEIVING WATER OBSERVATIONS **No discharge on day of this CEI.**

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No**).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☐ S ☐ M ☐ U ☒ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☐ S ☐ M ☐ U ☒ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO:_____(e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

SECTION I - SAMPLING INSPECTION PROCEDURES *(FURTHER EXPLANATION ATTACHED **No**).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☐ N ☒ NA

2. TYPE OF SAMPLE OBTAINED

GRAB_____ COMPOSITE SAMPLE METHOD_____FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

GCC Rio Grande, Inc. - Tijeras
Plant Compliance Evaluation
Inspection NPDES Permit No.
NM0000116

Further Explanations

Introduction

On June 7, 2017, a Compliance Evaluation Inspection (CEI) was conducted by Mr. Daniel Valenta, of the State of New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) at the GCC Rio Grande, Inc., Tijeras Plant located at 11783 State Highway 337, Tijeras, New Mexico in Bernalillo County. On June 7, 2017, Mr. Valenta was accompanied by Ms. Sandra Gabaldon and Ms. Diana Aranda, also of NMED SWQB. GCC Rio Grande, Inc. is classified as a minor facility discharger under the federal Clean Water Act, Section 402 National Pollutant Discharge Elimination System (NPDES) permit program and is assigned permit No. NM0000116. The facility has a Multi-Sector General Permit (MSGP) NMR053190 to cover stormwater discharges not covered under the individual permit.

This permit authorizes discharges from Outfall 001 and Outfall 004 (never built). Outfall 001 is authorized to discharge stormwater runoffs from quarry, storage and production areas, once-through cooling water, cleaning water, and Artesian well water. Outfall 004 is authorized to discharge stormwater runoffs from storage and production areas, once-through cooling water, cleaning water, and Artesian well water. Outfall 001 and Outfall 004, if a discharge does occur, would discharge into unclassified reaches of Corral Canyon, thence to Tijeras Canyon, thence to a classified reach of the Rio Grande in Segment 20.6.4.105 of the Rio Grande Basin (*NMAC State of New Mexico Standards for Interstate and Intrastate Surface Waters)*. Designated uses of segment 20.6.4.105 are irrigation, marginal warmwater aquatic life, livestock watering, public water supply, wildlife habitat and primary contact.

The inspector arrived at GCC Rio Grande, Inc. at 0940 hours and conducted an entrance interview with Sarah Vance, Environmental Engineer, GCC. Mr. Valenta made introductions, presented his credentials and discussed the purpose of the inspection with Ms. Vance. An exit conference was conducted with Mr. Alex Alarcon, Plant Manager, Mr. James Burt, Raw Materials Manager and Ms. Sarah Vance on June 7, 2017 at approximately 1232.

Permission was obtained from the land owner to enter the property below GCC Outfall 001 and Outfall 004. A site visit was completed on 6/26/2017. With the Inspector was Sandra Gabaldon of the State of New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB); Kali Bronson, Stormwater Program Compliance Manager, Bernalillo County; and Sarah Vance, Environmental Engineer, GCC.

The NMED performs a specific number of CEI's annually for the United States Environmental Protection Agency (USEPA). The purpose of this inspection is to provide the USEPA with information to evaluate the permittee's compliance with their NPDES permit. The enclosed inspection report is based on verbal information supplied by the permittee's representatives, observations made by Mr. Valenta, and a review of records maintained by the permittee, commercial laboratory, and/or NMED. Findings of the inspection are detailed in the attached EPA form 3560-3 and in the narrative further explanations section of the report.

GCC Rio Grande, Inc. - Tijeras Plant
Compliance Evaluation Inspection
NPDES Permit No. NM0000116

Treatment Scheme

The Tijeras cement plant began construction in 1958 and was operating by 1960. The plant kilns were originally fired on natural gas and then converted to coal in the mid 1970s. In 1980, the kilns were shortened and two stage suspension preheaters were added. In 1987, the clinker cookers were replaced with modern grate coolers and the coal mills were replaced with smaller more efficient mills.

The Tijeras cement plant produces Portland cement. Portland cement is a fine, gray powder comprised of forms of calcium silicate, tricalcium aluminate, tetracalcium aluminoferrite, with the addition of forms of calcium sulfate. The plant is a continuous process and can operate continuously for several months with minimal shut down time for maintenance. Since the final product is a fine powder, the production of Portland cement creates both air quality and water quality issues. The stages of production include: Procurement of raw materials, raw milling, pyroprocessing (kilns), clinker cooling/storage, product finishing and product storage and loadout.

The predominant raw material used in the process is limestone, which is extracted from a quarry adjacent to the plant. Other raw materials, including silica, alumina, and iron are transported to the site via truck. Raw milling involves mixing and grinding the raw materials to provide the kiln feed with the correct chemical and physical properties. The milling ensures optimal fuel efficiency in the cement kiln and strength in the final concrete product. The Tijeras plant uses a dry milling process to prepare the kiln feed. This means that the materials are dried before or during the grinding process and no water is added. In pyroprocessing, the raw materials are heated in the kilns to produce Portland cement clinker. The kiln system consists of preheating, calcining (a heating process in which calcium oxide is formed), and burning (reaction of the oxides to form clinker).

The clinker cooling operation recovers up to 30% of kiln system heat, preserves product quality, and enables the cooled clinker to be handled by belt conveyors. The Tijeras plant uses reciprocating grate coolers. Air sent through the clinker to cool it is directed to the rotary kiln where it nourishes fuel combustion. Conveyors then transfer the clinker to a covered storage pile until the product is moved to the finish mill.

The final stage of Portland cement production known as finish milling is where the clinker is ground with other materials (which impart special characteristics to the finished product) into a fine powder. Up to 5% gypsum and/or natural anhydrite are added to regulate the setting time of the cement. Other chemicals, such as those which regulate flowability may also be added. The Tijeras plant uses a roll crusher to achieve a preliminary size reduction of clinker and gypsum. These materials are then sent through ball mills which perform the remaining grinding. The product finishing is a dry system.

Once the production of Portland cement is complete, the finished product is transferred using bucket elevators and conveyors to the storage silos in the shipping department.

GCC Rio Grande, Inc. - Tijeras Plant
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Stormwater runoff from the mine areas of the facility would pond in low areas inside quarries, and may travel haul roads and Corral Canyon, then to a low area called "Frog Pond," then comingles with process waters at Quarry #1 pond in the northwest portion of the facility. Water well #2 house and truck scales at the cement silos are dewatered, using pumps and hoses, onto paved areas with drainage to the ditch along the south side of the plant. South of the mill building, a cooling water sump also has an overflow pipe that allows discharge onto paved areas with drainage to the ditch along the south side of the plant. The plant's drainage system (discharge flow paths) includes surface runoff, curb and constructed swales in paved areas, series of manmade unlined ditches, culvert, and drop inlets that would convey the plant's process water and stormwater by underground pipe with an outlet in a channel west of the Coal Building, then to Quarry #1 pond. When Quarry #1 pond overflows, discharges would occur from a low spot at the north side.

Section A – Permit Verification – Overall rating of "Unsatisfactory"

Permit Requierements:

Part I.A.1 (Outfall 001) of the Permit states:

> *During the period beginning the effective date of the permit and lasting through the dismantle of Outfall 001, the permittee is authorized to discharge storm runoffs from storage and production areas, once-through cooling water, cleaning water, and Artesian well water from Outfalls 001. Such discharges shall be limited and monitored by the permittee as specified below:*

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS Standard Units		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.0	9.0	/Day	Grab

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS lbs/dav, unless noted		mg/I, unless noted		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	30-Day Avg	Daily Max	30-Day Avg	Daily Max	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow.	50050	Report MGD	Report MGD	***	***	I/Day	Estimate
Total Suspended Solids	00530	*NIA*	*NIA*	*NIA*	50	I/Week	Grab
Total Aluminum	01105	*NIA*	*NIA*	*NIA*	0.75	I/Week	Grab
Total Conner	01042	*NIA*	*NIA*	*NIA*	0.011	I/Week	Grab
Dissolved Cooner	01040	*NIA*	*NIA*	*NIA*	Report	I/Week	Grab
Total Hardness	46570	*NIA*	*NIA*	*NIA*	Report	I/Week	Grab

GCC Rio Grande, Inc. - Tijeras Plant
Compliance Evaluation Inspection
NPDES Permit No. NM0000116

Part I. A. 2 (Outfall 004) of the Permit states:

During the period beginning the operation of Outfall 004 and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge storm runoffs from storage and production areas, once-through cooling water, cleaning water, and Artesian well water from Outfalls 004. Such discharges shall be limited and monitored by the permittee as specified below (I):

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS Standard Units		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.0	9.0	I/Day	Grab

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS lbs/day, unless noted		mg/L unless noted		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	30-Day Avg	Daily Max	30-Day Avg	Daily Max	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	Report MGD	Report MGD	***	***	I/Day	Estimate
Total Suspended Solids	00530	*N/A*	*N/A*	*N/A*	50	I/Week	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING		MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY TESTING (48-Hour Static Renewal)	30-DAY AVG MINIMUM	48-HR MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Daphnia pulex	Report	Report	I/Year (2)	Grab

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Outfall 004.

Effluent Characteristics Sampling

The permittee shall take at the minimum of representative water samples, as listed below, for characteristics study. Water samples shall be collected from the effluent at Outfall 004 during the first and second discharge events, unless the discharge does not provide enough sample volume for analysis. Water samples shall be analyzed for total hardness (as CaC03) and metals (both total recoverable and dissolved), cyanides, and persistent pollutants as listed below:

Two samples for: Aluminum, Antimony, Arsenic, Boron, Cadmium, Chromium, Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc, Cyanide, and weak acid dissociable Cyanide.

One sample for:
Aldrin, Benzo(a)pyrene, Chlordane, 4,4'-DDT and derivatives, Dieldrin, 2,3,7,8-TCDD Dioxin, Hexachlorobenzene, PCBs, and Tetrachloroethylen

GCC Rio Grande, Inc. - Tijeras Plant
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NPDES Permit No. NM0000116

Finding:

1. The permit was written based on information provided in the 2015 application, however that information does not reflect the reality at the facility. At the time of the 2015 application the facility was moving in the direction of separating stormwater from the mining and quarrying operation from the stormwater coming from the manufacturing and processing area of the facility. Thus, you have two different outfalls, 001 & 004. Each of these outfalls would receive stormwater from different areas of the facility. As such the pollutant's in the stormwater may be quite different. Outfall 004 has additional requirements for sampling and analyzing due to stormwater from the manufacturing/processing area.

   Outfall 004 was never built. All stormwater from the facility is combined and discharged if the rain event is large enough from Outfall 001. Thus the additional sampling and analyzing requirements under 004 are not complied with.

2. Discharges under this permit are restricted to catastrophic or chronic precipitation events. A pump is used to discharge water from the quarry pond, see photo 1.

3. See photo 5. It appears discharges have occurred in the general location of where Outfall 004 was to be built. These discharges have not been sampled or monitored as required by Part I.A.II above.

Section C – Operations and Maintenance – Overall rating of "Unsatisfactory"

Permit Requirements:

Part II. B – Other Conditions – The Permit States:

BEST MANAGEMENT PRACTICE

1. *The operator shall take reasonable steps to maintain maximum capacities of retention ponds to contain the process wastewaters and storm water runoffs from manufacturing areas.*

2. *Discharges are restricted to overflows from the retention pond due to catastrophic or chronic precipitation events.*

3. *Discharges of storm water runoff from access roads in undisturbed areas shall be covered under the NPDES Multi-Sector Storm Water Permit.*

4. *If a discharge of storm runoff from a quarry (mining) area is necessary, the discharge must comply with effluent limitations established at Outfall 001.*

GCC Rio Grande, Inc. - Tijeras
Plant Compliance Evaluation
Inspection NPDES Permit No.
NM0000116

Finding:

The permit requires that the operator shall take reasonable steps to maintain maximum capacities of retention ponds to contain the runoff from the quarry and storm water runoffs from the manufacturing areas. Every rain event brings more solids into the quarry settling basin. The basin has never been cleaned to maintain the capacity of the settling pond.

NMED/SWQB
Official Photograph Log
Photo # 1

Photographer: Daniel Valenta	Date: June 7, 2017	Time: 10:55 hours
City/County: Tijeras/Bernalillo		
Location: GCC Rio Grande Inc. Tijeras Plant, 11783 State Hwy 337 South, Tijeras, NM 87059		
Subject: Quarry pond above Outfall 001. Note hose hookup, when the pond fills a pump is used to drain water through Outfall 001.		

NMED/SWQB
Official Photograph Log
Photo # 2

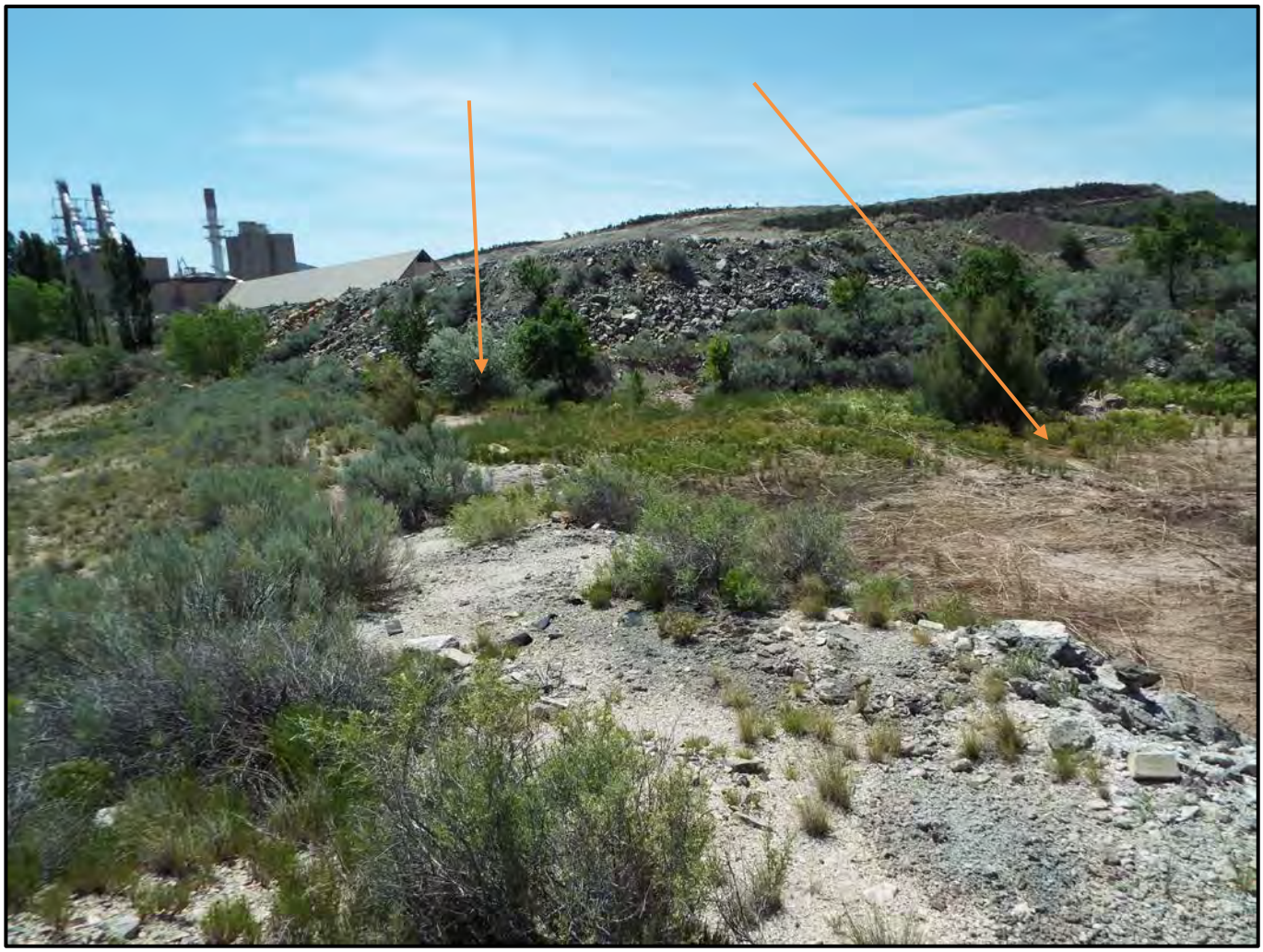
Photographer: Daniel Valenta	Date: June 7, 2017	Time: 11:09 hours
City/County: Tijeras/Bernalillo		
Location: GCC Rio Grande Inc. Tijeras Plant, 11783 State Hwy 337 South, Tijeras, NM 87059		
Subject: Quarry pond, looking northwest towards Outfall 001.		

NMED/SWQB
Official Photograph Log
Photo # 3

Photographer: Daniel Valenta	Date: June 7, 2017	Time: 10:57 hours
City/County: Tijeras/Bernalillo		
Location: GCC Rio Grande Inc. Tijeras Plant, 11783 State Hwy 337 South, Tijeras, NM 87059		
Subject: Quarry outfall 001.		

NMED/SWQB
Official Photograph Log
Photo # 4

Photographer: Daniel Valenta	Date: June 7, 2017	Time: 11:06 hours
City/County: Tijeras/Bernalillo		
Location: GCC Rio Grande Inc. Tijeras Plant, 11783 State Hwy 337 South, Tijeras, NM 87059		
Subject: Stormwater falling on the process part of the facility drains into the quarry pond.		



NMED/SWQB
Official Photograph Log
Photo # 5

Photographer: Daniel Valenta	Date: June 26, 2017	Time: 11:38 hours
City/County: Tijeras/Bernalillo		
Location: GCC Rio Grande Inc. Tijeras Plant, 11783 State Hwy 337 South, Tijeras, NM 87059		
Subject: The settling pond and Outfall 004 was never constructed; however, it appears discharges have been occurring. No samples have been taken at unpermitted outfall.		

NMED/SWQB
Official Photograph Log
Photo # 6

Photographer: Daniel Valenta	Date: June 26, 2017	Time: 11:07 hours
City/County: Tijeras/Bernalillo		
Location: GCC Rio Grande Inc. Tijeras Plant, 11783 State Hwy 337 South, Tijeras, NM 87059		
Subject: Discharges from the facility have eroded deep channels on the property next to the facility. Downcutting can be seen below Outfall 001 and Proposed Outfall 004, see photo 5. These two outfalls merge into the arroyo below.		

NMED/SWQB
Official Photograph Log
Photo # 7

Photographer: Daniel Valenta	Date: June 26, 2017	Time: 11:38 hours
City/County: Tijeras/Bernalillo		
Location: GCC Rio Grande Inc. Tijeras Plant, 11783 State Hwy 337 South, Tijeras, NM 87059		
Subject: Small bits of what appears to be coal bits can be found throughout the arroyo. Coal is stored on the north side of the facility near the proposed Outfall 004.		

Submitted Attachments

From GCC Rio Grande

May 29, 2015

GCC
Rio Grande

RECEIVED
15 JUN -1 PM 3:09
PERMITS BRANCH
6WQ-P

Expiration
11/30/05

VIA RETURN RECEIPT: 7014 3490 0002 0022 8831
VIA E-MAIL: chen.isaac@epa.gov

May 29, 2015

Mr. Isaac Chen
Regional Coordinator
US EPA, Region 06 / NPDES Permits & TMDLs Branch
1445 Ross Ave., Suite 1200
Mail Code: 6WQ-PP
Dallas, TX 75202-2733

RE: 2015 Renewal Application Package for GCC Rio Grande's NPDES Permit #NM0000116

Dear Mr. Chen:

Grupo Cementos de Chihuahua (GCC) Rio Grande, Inc. respectfully submits the attached application package for the renewal of National Pollution Discharge Elimination System (NPDES) Permit #NM0000116. The renewal application is being submitted in accordance with permit condition Part III – A.4, which requires the renewal application be submitted at least 180 days prior to the permit's November 30, 2015 expiration date. There are two changes included in this renewal application as compared to the previous permit, the removal of quarry stormwater from coverage under this permit, and correction of the latitude and longitude coordinates for the pending construction of Outfall 004.

The application package contains the following completed forms and supporting information in the attachments:

1. NDPES *Form 1* for General Information;
2. NDPES *Form 2C* for wastewater and industrial stormwater from manufacturing operations and access roads (please note revised latitude and longitude coordinates for Outfall 004);
3. Analytical report dated 8/22/14 from the most current 8/13/14 discharge event from Outfall #001 (note that due to prolonged drought conditions explained further below, this is the only discharge that has been sampled during the previous 3 year period); and
4. A brief description of the preliminary design for the future detention basin and associated future Outfall #004.

INTEGRATED | ENVIRONMENTAL
CONSTRUCTION ENGINEERING
Design | Comply | Restore

GCC 2015 Industrial Permit Application Summary

Plant Process Pond Construction

Plant process water is presently captured in Quarry #1 Retention Basin. Construction of a new pond and associated outfall to capture the plant process water will assist with improved compliance by providing the following:

- Attenuated effect of combined discharge from the drainage basin and the plant process water.
- Ensure a designed outfall structure is placed to control volume discharge and facilitate TSS measurement.
- Increase the production facility's retention footprint.

The pond will be located upstream and north of the overflow channel. Designing the pond capacity will include establishing the contribution of the drainage area from the plant proper to match site constraints controlling the dimensions of the pond. Minor channel construction and redirection of plant runoff will be required to direct the effluent to this pond. The outfall associated with the pond will be constructed to control discharge, define the discharge point and allow for measurement of constituents in the discharge for compliance reporting.

GCC
Rio Grande

June 15, 2017

Lead EPS, New Mexico State Coordinator
NPDES Compliance Monitoring Section
Water Enforcement Branch
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Re: 2016 Toxicity Discharge Monitoring Reports
GCC Rio Grande, Inc. Tijeras Facility
Permit No. NM0000116
Outfalls TX1Y, TX4Y

To Whom It May Concern:

The GCC Rio Grande, Inc. Tijeras facility is required to complete annual Whole Effluent Toxicity Testing annually when a discharge occurs. No discharges occurred in 2016, however, when GCC attempted to submit a Discharge Monitoring Report via NetDMR during the 4th Quarter reporting cycle in January 2017, the errors shown in the attachment were received.

Per recent discussions with the New Mexico Environment Department Surface Water Quality Bureau on this subject, a paper copy of the 2016 WET DMR is attached. No discharge occurred during the monitoring period.

Please do not hesitate to call or email me at 505-286-6026 if you have any questions regarding this submittal.

Sincerely,

Sarah Vance
Environmental Engineer

Enclosures: 2016 WET DMR for Outfall 001 and Outfall 004
NeT Reporting Error

Cc: Daniel Valenta, NMED Surface Water Quality Bureau

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME GCC Rio Grande, Inc.

ADDRESS P.O. Box 100
Tijeras, NM 87059

FACILITY LOCATION 11783 Hwy 337 South
Tijeras, NM 87059

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

NM0000116 (2-16)	TX4Y (17-19)
PERMIT NUMBER	DISCHARGE NUMBER

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	15	12	01	TO	16	11	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

☒ Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING AVERAGE (46-53)	MAXIMUM (54-61)	UNITS	(4 Card Only) QUALITY OR CONCENTRATION MINIMUM (38-45)	AVERAGE (46-53)	MAXIMUM (54-61)	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Whole Effluent Toxicity Testing Daphnia pulex	SAMPLE MEASUREMENT	******	******	**** ****	NO	DISCHARGE	******	Pass/ Fail	0	1/365	Grab
	PERMIT REQUIREMENT	******	******		******	******	Report				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
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NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Sarah Vance
Env. Eng.

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

Sarah Vance [signature]

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
505	286-6026	17	06	09
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME GCC Rio Grande, Inc.

ADDRESS P.O. Box 100
Tijeras, NM 87059

FACILITY LOCATION 11783 Hwy 337 South
Tijeras, NM 87059

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

NM0000116 (2-16)	TX1Y (17-19)
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	15	12	01	TO	16	11	30
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

[X] Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		QUANTITY OR LOADING (3 Card Only) AVERAGE (46-53)	MAXIMUM (54-61)	UNITS	QUALITY OR CONCENTRATION (4 Card Only) MINIMUM (38-45)	AVERAGE (46-53)	MAXIMUM (54-61)	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Whole Effluent Toxicity Testing Daphnia pulex	SAMPLE MEASUREMENT	******	******	**** ****	NO	DISCHARGE	******	Pass/ Fail	0	1/365	Grab
	PERMIT REQUIREMENT	******	******		******	******	Report				
	SAMPLE MEASUREMENT										
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	PERMIT REQUIREMENT									O	

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Sarah Vance
Env. Eng.

TYPED OR PRINTED

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
505	286-6026	17	06	09
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Outfall 001 Tox DMR Error

Reporting on this DMR is no longer required in ICIS. The DMR has been removed.

New Search | Refine Search |

DMR/COR Search Results

Outfall 004 Tox DMR Error

Reporting on this DMR is no longer required in ICIS. The DMR has been removed.

New Search | Refine S

Valenta, Daniel, NMENV

From: Vance Sarah <svance@gcc.com>
Sent: Thursday, June 29, 2017 1:06 PM
To: Valenta, Daniel, NMENV
Cc: Gabaldon, Sandra, NMENV
Subject: Sediment Pond Cleanout Plan
Attachments: Sediment Pond 1a.jpg

Hi Daniel,

This email is to communicate GCC's plan for the Best Management Practice in our individual NPDES permit regarding reasonable measures to maximize the capacity of the Sediment Pond No. 1. As we discussed during the inspection, we have historically not been able to access most of the sediment in the pond as our heavy equipment sinks into the material once we attempt to dig. However, we can access the sediment at the edges of the pond, where the heavy equipment can remain on the quarry road. We have removed the sediment that can be reached from that point (see attached photograph). We expect that the material remaining in the pond will begin to fill the hole created at the low, overflow point of the pond. We plan to use an excavator to clean that area of sediment on a monthly basis in order to continue maximizing the capacity of the pond.

Please let me know if you have any questions or require any other information.

Thanks,

Sarah

75th ANNIVERSARY •1941 - 2016•

Sarah Vance
Environmental Engineer

GCC Rio Grande
11783 Highway 337 South
Tijeras, NM
87059
UNITED STATES

Phone: 505-286-6026
Mobile: 505-238-8272
E-mail: svance@gcc.com

www.gcc.com

GCC